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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,914	06/25/2001	Sung-Ho Choi	678-694 (P9830)	9764
28249	7590	12/20/2004	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			WAHBA, ANDREW W	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/888,914

Applicant(s)

CHOI ET AL.

Examiner

Andrew W Wahba

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 4-7, 9, 14-17 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/25/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1, the portions of the claim in lines 18-21 are difficult to follow. With regard to claim 10, the portions of the claim in lines 14-17 are difficult to follow. With regard to claim 11, the portions of the claim in lines 16-18 are difficult to follow. In each of these claims the applicant refers to a "time different", it is not clear what two steps are performed at different times.

With regard to claims 2, 3, 12 and 13 the term "starting time" and the manner in which it can refer to a channel is not understood.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 8, 10, 11, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ariyoshi et al (US Patent 5,930,244).

With regard to claims 1, 10 and 11, Ariyoshi et al discloses an acquisition circuit that operates for timing (synchronizing) acquisition of a spreading code (scrambling code) (column 4, lines 18-24). Ariyoshi et al discloses a base station 401 connected to a network (UTRAN) as illustrated by Fig 10 (column 3, lines 66-67). Ariyoshi et al discloses an orthogonal code assigned to each terminal station (plurality of user equipments) generated from an orthogonal code generator 212 (orthogonal codes for identifying the UEs) (column 4, lines 13-18). Ariyoshi et al discloses, at the terminal station 402, an output of the first multiplier 304 is supplied to a second multiplier 305 to be multiplied by forward link pseudo noises  $PN_f$  generated by a PN generator 312 (scrambling code generator). The PN generator 312 is set with noise patterns that are the same as the  $PN_f$  specific to the forward link generated at the base station (uplink scrambling code for the UEs to identify the UTRAN). Ariyoshi et al discloses a decision circuit 213 that compares the acquired (receiving) phase while a de-spreading process for the received signal is performed in parallel, and outputs the phase difference information PD-i (measure a propagation delay) (column 4, lines 28-32). Ariyoshi et al discloses a reverse link synchronization controller 103 (controller) that generates phase jump information PJ-i for each terminal station, and in accordance with phase difference information PD-i generates a phase control instruction PC-i (time adjustment value and time offset) for each terminal station (UEs synchronize frames of uplink dedicated physical channels using the single scrambling code / UEs receive a signal providing system timing) (column 4, lines 36-43). In accordance with the contents of the phase synchronization control instruction PC-i (receiving the time adjustment value), the

transmission phase controller 315 (transmission time of an uplink), outputs a control signal PS-i that is used for fine adjustment of the phases of the orthogonal code  $W_i$  and pseudo noises  $PN_r$  (UEs transmit a random access channel based on the system timing) (column 6, lines 61-65). Ariyoshi et al discloses a transmitting circuit (frame generator) that consists of a first multiplier 320 that multiplies the encoded data by the orthogonal code  $W_i$  (scrambling a frame with an orthogonal code) and a second multiplier (scrambler) that multiplies the output of the first multiplier by the reverse link  $PN_r$  (scrambling code generated) to perform a second spectrum spread modulation (column 7, lines 25-37).

With regard to claims 8 and 18, Ariyoshi et al discloses a decision circuit 213 that compares the acquired phase while a de-spreading process for the received signal is performed in parallel, and outputs the phase difference information PD-i (time adjustment value) (column 4, lines 28-32).

With regard to claim 19, Ariyoshi et al discloses a transmitting circuit that consists of a first multiplier 320 that multiplies the encoded data by the orthogonal code  $W_i$  and a second multiplier that multiplies the output of the first multiplier by the reverse link  $PN_r$  (scrambling code) to perform a second spectrum spread modulation (column 7, lines 25-37). The PN codes of the different base stations are offset from each other.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2661

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ariyoshi et al (US Patent 5,930,244) in view of Dean et al (US Patent 5,839,052).

With regard to claims 2, 3, 12 and 13, Ariyoshi et al does not expressly disclose that the system time is a starting time of a common pilot channel CPICH signal or that the system time is a starting time of a primary common control physical channel P-CCPCH. Dean et al discloses a CDMA system in which each base station transmits a pilot (CPICH/P-CCPCH) having a common PN spreading code that is offset (system time) in phase code from pilot signals of other base stations (column 2, lines 12-19). The motivation to synchronize the pilot channel and control channel is to avoid collision between information sent by the different mobile terminals at other base stations. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to obtain the invention as specified in claims 2, 3, 12 and 13.

***Allowable Subject Matter***

7. Claims 4-7, 9, 14-17 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (571) 272-3081. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

Andrew Wahba *AW*  
Patent Examiner  
December 7, 2004

  
**PHIRIN SAM**  
**PRIMARY EXAMINER**